Toad and Bullfrog Standard Operating Procedures

Presented to the Public Safety Communications Advisory Commission

Mark Botkin

Emergency Communications Coordinator
Arizona Division of Emergency Management

November 19, 2013

Public Safety Interoperable
Communications Office

Background

- The Arizona Division of Emergency Management (ADEM) is responsible for advancing SCIP Initiative #8: *Sustain the State [Strategic Technology Reserve](#) (STR)*.

- The STR consists of five communications trailers, radio caches, Iridium Satellite Phones, Voice Over IP Phones, Ruggedized Laptops, and five Mobile Communications Vehicles placed in strategic locations around Arizona to ensure the shortest response times.

Bullfrog

- Bullfrog – Maricopa County

Toads

- Four Toads
  - Gila County
  - Mohave County
  - Navajo County
  - Pima County
- Available for deployment for any agency

Technical Assistance

- December 2012 – Office of Emergency Communications (OEC) awarded Arizona a Technical Assistance grant for OP-MCVS: Mobile Communications Vehicle (MCV) Support
  - Provides a detailed Standard Operating Procedure (SOP) and Concept of Operations Plan (CONOPS)

- January 2013 – OEC, PSIC and ADEM met for initial planning and data collection

- Ongoing – September 2013 – numerous conference calls, in person meetings and emailed feedback to complete the SOPs

Equipment Overview

Audio Gateway	• (1) Ten port ACU-1000
Radios	• (3) Kenwood 780, VHF public safety programmable radios • (3) Kenwood 880, UHF public safety programmable radios • (2) Kenwood 980, 800 public safety programmable radios • (2) ICOM 2720, dual-band (VHF/UHF) amateur radios • (1) ICOM 706, tri-band (HF/VHF/UHF) amateur radio • (1) MOTOROLA XTL 5000, (700/800 trunked) radio • (1) UNIDEN, BC296D/BC796D (SCANNER)
Satellite Communications	• TracStar / iDirect Satellite High-speed Internet Systems with Priority Satellite VoIP
Data	• (1) Dell Racked mounted server • (3) Dell Laptops • Long Range WiFi • VPN Control of all IP systems

Roles & Responsibilities

- Identified the Roles & Responsibilities related to the Bullfrog and Toads

    - ADEM Logistics Duty Officer
        - » Point of Contact for the Bullfrog and Toads
        - » Facilitates approval and mobilization processes

    - Driver
        - » Always accompanies the Bullfrog or Toad
        - » Responsible for vehicle stand up (including generator and balancing)

    - Technical Specialists (THSP)
        - » Activate communications systems, as needed
        - » Serve as COML/COMT when requested
        - » Stays with the vehicle during an incident

    - Incident Command
        - » Establishes requirements for the Technical Specialists

Activation & Deactivation

- Activation Procedures
  - Who to call
  - What information must be provided when requesting the vehicle
    - » What agency is requesting the vehicle
    - » Where it is needed
    - » Duration of event….etc
  - Deployment procedures
  - Outline of what costs are the incurred by the Requesting Agency
- Prioritization
  - Identify what events take priority
  - Disasters, large scale incidents over drills exercises

Checklists

- Pre-Deployment Checklist
  - Vehicle Inventory Checklist
  - Service Checklist
    - » Ensure no issues that would hinder the mission
  - Scene Information
  - Personal Supply Pack
  - Crew Supply Pack
  - Exterior Vehicle Inspection
  - Interior Vehicle Inspection

Operational Procedures

- Driving to the Scene

- Positioning the Vehicle

  - Check with Incident Commander or Logistics

  - Level parking surface

  - Unobstructed view of the southern sky for the satellite services

  - Overhead clearance for deployment of:
    - » Towers
    - » Mast
    - » Antennas

- Startup and Shutdown

- Deactivation

- Post-Deployment Checklist

Setup and Shutdown Section for all Equipment

- Shore Power

- Generator Power

- Circuit Breaker Panel

- Communications Rack Equipment

- Radio Rack Equipment

- Data Rack Equipment

- Audio/Video Equipment

- Antennas

- Tracstar – Satellite Dish

- IP Camera
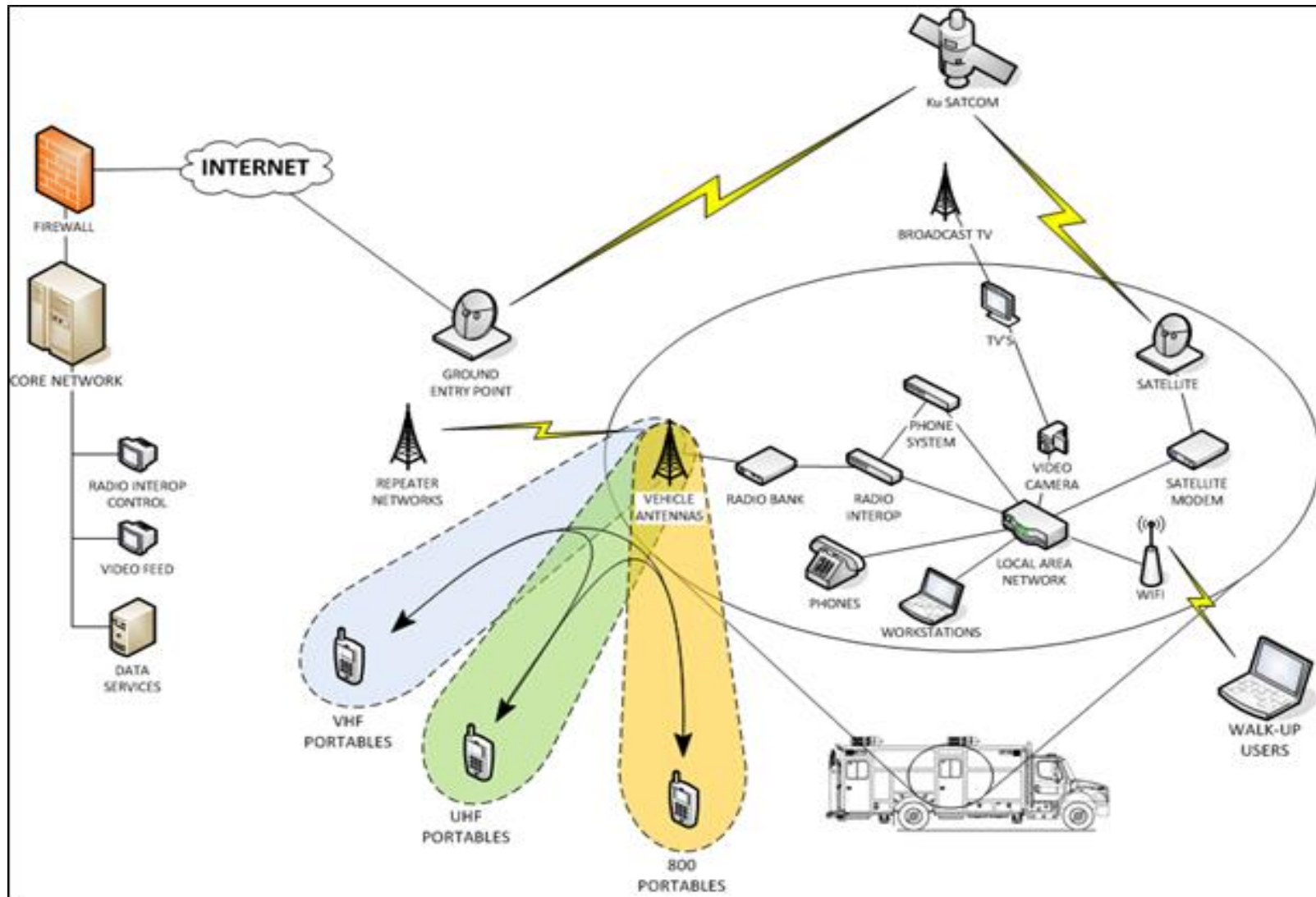
- Mast

- Big Foot (Vehicle Stabilizer System)

Detailed Start-Up, Shutdown and Troubleshooting

- Step by Step procedures to complete each task – accompanied by photographic descriptions

  - First make sure the circuit breaker selection bar is moved to Shore Power circuit breaker

POWER SELECTION BAR

Detailed Diagrams

Maintenance & Technical Guidance

- Technical Guidance References
  - AIRS, NIFOG, TICP

- Vehicle Maintenance
  - Troubleshooting
  - Responsibilities

- Preventative Maintenance Checklist
  - Checklist completed twice a year

Video SOP

- OEC offered Arizona the opportunity to beta test the creation of a Toad Video SOP

  - OEC provided a technical resource and a videographer for the production

  - Gila County provided their Toad and identified a location for the video shooting

  - Using the Toad SOP as a guide, created short videos outlining how to setup and store each piece of equipment

  - ADEM provided two technical support specialists: Jose Leonard and Mark Botkin. Mark narrated the step by step walk through of each procedure in the videos

- Videos were provided to ADEM in three versions:

  - HD, SD and mobile

Eight Videos Created

- AZ Toad Overview

- WiFi Access; ACU1000 Login and Mast Camera Login

- Deploy & Stow Antenna – Raise & Lower Mast

- Deploy and Stow Satellite Dish; Satellite Acquisition

- Deploy Generator Power and Stabilize Vehicle

- Deploy Shore Power and Stabilize Vehicle

- Stow Stabilizers; Turn off Power; Power Down Generators and Secure Equipment

- Stow Stabilizers; Turn off Power; Remove Shore Power and Secure Equipment

SOP and Video

- The SOP and videos will be available electronically and as a hard copy in each of the Toads and the Bullfrog.

- SOPs will also be available online in the next update of the ADEM website.

- SOPs are in CASM – attached to each MCV

- The SOP is available for use by other agencies that would like to use it as a template for their own MCV.

- The Toads and Bullfrogs are available for deployment throughout the state.

Thank You!

Questions?